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EXAMINER

LAVINDER, JACK W

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES D. PYLANT, SCOTT C. BRADLEY, and ALAN
WABER

Appeal 2008-0780
Application 10/620,282
Technology Center 3600

Decided: April 11, 2008

Before TERRY J. OWENS, LINDA E. HORNER, and STEVEN D.A.
McCARTHY, *Administrative Patent Judges*.

HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1-4, 8-11, 16-19, 28, 30, 32, and 33, all the claims currently pending in the application¹. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

SUMMARY OF DECISION

We AFFIRM.

THE INVENTION

Appellants' claimed invention is directed to a clip for securing a tray and cover that places stack compression forces on tray perimeter rails (Spec. ¶ 0002). Claim 1, reproduced below, is representative of the subject matter on appeal.

1. An apparatus for clamping together in a stack at least one tray adapted to hold a plurality of integrated circuits in pockets disposed therein and a cover, the apparatus comprising:

a base forming a bottom of a channel, the channel having a first opening opposite a second opening, each opening allowing for the insertion and removal of the stack;

first and second restraining segments attached to the base that together with the base form a channel structure, wherein the channel structure restricts substantial movement of the stack both transverse to a length of the channel and perpendicular to a plane of the base; and

at least two pressure members attached to the channel structure, each pressure member having a slit between the base and a side of the pressure member, wherein the pressure members apply a force on a portion of the perimeter of the stack to clamp the stack together, to

¹ Claims 5-7, 12, 13, 20-22, 24, 25, 27 and 31 were withdrawn from consideration, and claims 14, 15, 23, 26, and 29 were cancelled.

prevent movement of the tray independent of the cover and to retain the integrated circuits disposed within the pockets of the tray.

THE REJECTIONS

The Examiner relies upon the following evidence in the rejections:

Appellants' Admitted Prior Art (AAPA) as shown in Fig. 4 of the Specification.

The following rejections are before us for review:

1. Claims 1-4, 16-19, 28, 30, 32, and 33 stand rejected under 35 U.S.C. § 102(b) as anticipated by AAPA.

2. Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as unpatentable over AAPA.

ISSUES

Appellants contend that AAPA does not (1) “apply a force to any portion of the perimeter of a stack,” (2) disclose “[r]esilient [m]embers that extend from the base of a first and second end of the channel,” and (3) disclose or suggest “[a] narrow tray” (Appeal Br. 5). The Examiner found the pressure members of AAPA are capable of applying a force to a portion of the perimeter of the stack, and extend from first and second ends of the channel (Answer 4-6). The Examiner further found that the claims are directed to a clip device, and not to the combination of a clip device and a stack with cover and integrated circuits. Therefore, the annotated figure 4 on page 8 of the Answer “is not being used to show the structure of a stack,

but to show the capability of the clip/clamp device for applying a force to a portion of the perimeter of a stack” (Answer 9).

The issues before us are:

1. Whether Appellants have shown that the Examiner erred in rejecting claims 1-4, 16-19, 28, 30, 32, and 33 as anticipated by AAPA.

2. Whether Appellants have shown that the Examiner erred in rejecting claims 8-11 as unpatentable over AAPA.

FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

1. A customary meaning of the term perimeter is a line or strip bounding or protecting an area *Merriam-Webster’s Collegiate Dictionary* 920 (11th ed. 2005).

2. Appellants’ Specification does not define the term perimeter, nor does it utilize the term contrary to its customary meaning.

3. Appellants’ Admitted Prior Art (AAPA) teaches a clip apparatus 26 with two leaf springs 34 which apply a force to a stack inserted in the clip 26 (Spec. ¶ 0005, and Fig. 4).

4. The clip apparatus 26 includes a base forming a channel having a first opening opposite a second opening, each opening allowing for the insertion and removal of a stack; first and second restraining segments

attached to the base that together with the base form a channel; and two pressure members having a slit between the base and a side of the pressure member, wherein the pressure member applies a force on the portion of the stack which comes into contact with the pressure members (See the Examiner's annotated Fig 4 reproduced below).

5. The leaf springs 34 significantly traverse the channel formed by the base and restraining segments so as to contact a portion of the perimeter of any stack which is equal to or smaller than the channel of clip.

6. When a stack is inserted into the clip 26, the leaf springs 34 necessarily apply a distributed force to that portion of the stack which comes into contact with the leaf springs.

7. The AAPA is illustrated in the Examiner's annotated Figure 4, which is reproduced immediately below:

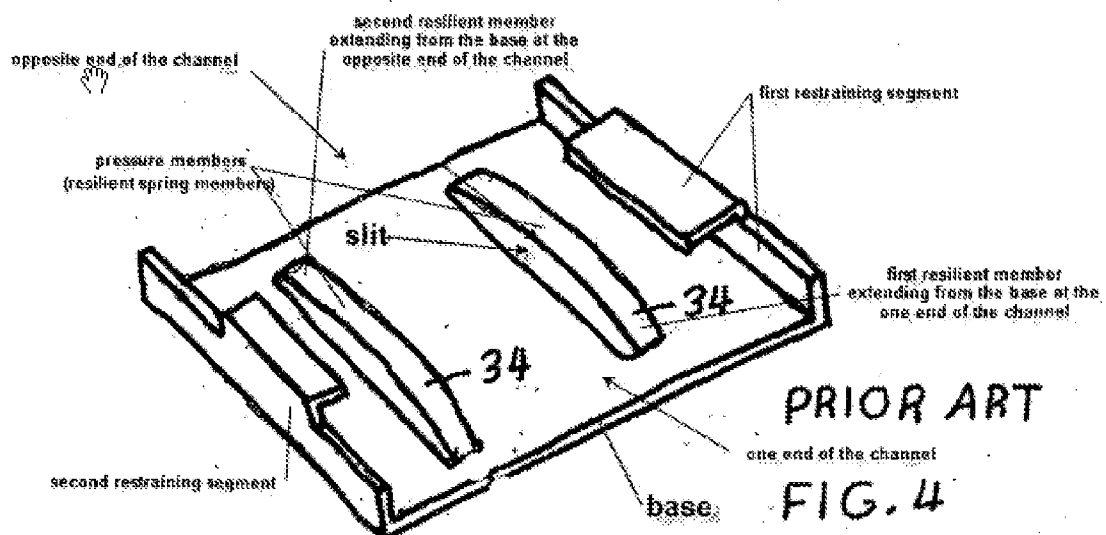


Figure 4 is a perspective view of the clip apparatus identifying the base; the two restraining segments which rise from opposite sides of the base; and the two leaf springs positioned near to, and parallel with, the restraining segments.

PRINCIPLES OF LAW

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987).

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int’l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 17-18.

In *KSR*, the Supreme Court emphasized “the need for caution in granting a patent based on the combination of elements found in the prior art,” *id.* at 1739, and discussed circumstances in which a patent might be determined to be obvious. In particular, the Supreme Court emphasized that “the principles laid down in *Graham* reaffirmed the ‘functional approach’ of *Hotchkiss*, 11 How. 248.” *KSR*, 127 S.Ct. at 1739 (citing *Graham*, 383 U.S. at 12 (emphasis added)), and reaffirmed principles based on its precedent that “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *Id.*

ANALYSIS

Rejection of claims 1-4, 16-19, 28, 30, 32, and 33 as anticipated by AAPA

Appellants do not present separate arguments for patentability of claims 3, 16-18, 28, 30, 32, and 33, and thus we treat claims 1, 3, 16-18, 28, 30, 32, and 33 as a group (Appeal Br. 4-6). We select claim 1 as a representative claim and the remaining claims of the group stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii) (2007).

Appellants contend that the AAPA fails to apply force to any portion of the perimeter of the stack. More specifically, Appellants contend that “[t]he force of AAPA’s clip...is applied to the *central area* of a tray stack, resulting in warped trays” (Appeal Br. 5). We disagree.

The two leaf springs 34 of AAPA apply force to any portion of the stack which comes into contact with the leaf spring (Finding of Fact 6). Therefore, whether or not the leaf springs of the AAPA apply a force to a portion of the *perimeter* of the stack depends on (1) the dimension of the stack inserted into the clip, and/or (2) what constitutes a portion of the perimeter of a stack.

As noted by the Examiner, the claimed invention is directed to an apparatus for clamping together a stack of trays, not the combination of a clamp and a stack of trays. Nowhere in the claimed invention is there any recitation of a specific stack having specific dimensions relative to the dimensions of the clip. We further note that the claim does not preclude the pressure members from applying pressure to the middle of the stack as long as the members also apply a force on a portion of the perimeter of the stack.

The claimed invention merely recites a functional limitation regarding a force applied to the stack when the clipping apparatus is engaged. Specifically, claim 1 recites that “the pressure members apply a force on a portion of the perimeter of the stack to clamp the stack together.” The Examiner found that the pressure members, i.e., leaf springs 34, of AAPA clip 26 are capable of applying a force on a portion of the perimeter of the stack if a stack having dimensions smaller than the dimensions of the clip’s channel is inserted into the clip (See the Examiner’s illustration on page 6 of the Answer). The insertion of a stack, i.e., at least one tray and a cover, into the clip necessarily will cause the leaf springs to deform somewhat in their

middle sections so as to vacate the space occupied by the stack in the channel, thereby spreading the pressure applied by the springs from a center line outwardly toward the directions of the ends of the channel.

Furthermore, inserting a stack having a length in the direction of the length of the channel narrow enough relative to the thickness of the stack necessarily will spread this pressure sufficiently so that portions of the leaf springs contact and apply pressure to portions of the perimeter facing the ends of the channel (See Findings of Fact 4 and 6). Such pressure would serve to clamp the stack together, to prevent movement of the tray independent of the cover and to retain the integrated circuits disposed within the pockets of the tray.

Accordingly, the Examiner found that the AAPA clip is capable of providing the claimed functionality. We agree. The Appellants are free to recite features of their pressure members functionally, but to do so carries the risk that where the Patent Office has reason to believe that the functional limitation is an inherent characteristic of the prior art, the Appellants must prove that the prior art does not possess the characteristic relied on. *See In re Schreiber*, 128 F.3d 1473 1478 (Fed. Cir. 1997). Here, the Appellants admitted that the AAPA clip includes leaf springs 34 for application of force to a stack (Spec. 2:¶0005). Thus, the Appellants acknowledge that the prior art leaf springs possess the characteristic of applying a force to the stack. Since claim 1 does not positively recite a stack of a specific size, as long as the AAPA clip is capable of applying a force to a stack of a size such that

the leaf spring applies force to a portion of a perimeter of the stack, the AAPA clip anticipates the claim.

Furthermore, the customary meaning of the term perimeter is a line or strip bounding or protecting an area (Finding of Fact 1). Appellants' Specification does not define the term perimeter, nor does it utilize the term contrary to its customary meaning (Finding of Fact 2). Therefore, we interpret the claimed "portion of the perimeter of the stack" to include any portion of the stack that includes the edge (i.e., line) or an area (i.e., strip) nearby the edge. The leaf springs 34 of AAPA apply a force to any portion of the stack which comes into contact with the leaf spring (Finding of Fact 6). Furthermore, the leaf springs 34 significantly traverse the channel formed by the base and restraining segments so as to cover a portion of the perimeter of any stack which is equal to or smaller than the channel of clip (Finding of Fact 5).

Appellants contend that the leaf springs of the AAPA clip do not apply a force to the perimeter of the stack because they apply the force to a central area of the stack. The leaf springs apply a force to any portion of the stack which comes into contact with the leaf springs. Engagement with a sufficiently thick stack will flatten the leaf springs, such that the leaf springs will apply force along their entire length. Given that the end portions of the leaf springs are positioned near the opposite ends of the channel, the leaf springs inherently apply force to a portion of the perimeter, that is, of an area

nearby the edge, of an inserted stack. This is true even in the case where a stack the same size as the AAPA clip is inserted into the clip.

Appellants argue claims 2, 4, and 19 as a group (Appeal Br. 7). We select claim 2 as a representative claim and the remaining claims of the group stand or fall with claim 2. 37 C.F.R. § 41.37(c)(1)(vii).

Appellants contend that “[n]othing in AAPA teaches or suggest adding resilient members to each end of AAPA’s channel” (Appeal Br. 7). The Examiner found that the pressure members, i.e., leaf springs 34, of AAPA were first and second resilient member extending from opposite ends of the channel (See the Examiner’s annotated drawing on page 5 of the Answer). The Examiner further found that Appellants’ Specification describes the resilient members (60, 62), which resemble the leaf springs of the AAPA clip, as pressure members (Answer 10). Appellants have not provided any evidence or argument to establish that the leaf springs 34 of AAPA are not resilient members as claimed. As such, we find Appellants’ concusory statement that AAPA does not teach or suggest resilient members extending from opposite ends of the channel unpersuasive.

Rejection of claims 8-11 as unpatentable over AAPA

Appellants argue that claims 8-10 are patentable over AAPA for the same reasons presented above with respect to claim 1 (Appeal Br. 9). We find Appellants’ arguments with regard to independent claim 1 unpersuasive for those reasons presented *supra*. As such, we sustain the Examiner’s rejection of claims 8-10 as unpatentable over AAPA.

Appellants argue that claim 11 is patentable over AAPA, because AAPA fails to teach or suggest resilient members as claimed (Appeal Br. 9). More specifically, Appellants contend that “each end of AAPA’s channel lacks any type of resilient member” (Appeal Br. 9). As discussed *supra*, the Examiner found that the leaf springs 34 of AAPA extend from opposite ends of the channel. Appellants have not provided any evidence or argument to establish that the leaf springs 34 of AAPA are not resilient members as claimed. As such, we find Appellants’ concusory statement that AAPA does not teach or suggest resilient members extending from opposite ends of the channel unpersuasive.

CONCLUSIONS OF LAW

We conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-4, 16-19, 28, 30, 32, and 33 as anticipated by AAPA, and claims 8-11 as unpatentable over AAPA.

DECISION

The Examiner’s decision to reject claims 1-4, 8-11, 16-19, 28, 30, 32, and 33 as anticipated by or unpatentable over AAPA is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

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